Geng Chen

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Education

Shanghai Jiao Tong University (SJTU), Shanghai, China 2019 – 2023

B.Eng. in Computer Science and Engineering, IEEE Honor Class

Zhiyuan College, Shanghai Jiao Tong University, Shanghai, China 2019 – 2023

Zhiyuan Honor Program of Engineering (Elite Program for Top 5% of Students at SJTU)

Research Interests

Computer Vision, Robotics, Machine Learning

Publications

Continual Predictive Learning from Videos [CVPR 2022 Oral, 4%] [Project Page]
Geng Chen*, Wendong Zhang*, Han Lu, Siyu Gao, Yunbo Wang, Mingsheng Long, Xiaokang Yang

Predictive Experience Replay for Continual Visual Control and Forecasting [Under Review]
Wendong Zhang, **Geng Chen**, Xiangming Zhu, Siyu Gao, Yunbo Wang, Xiaokang Yang

Learning Planning Abstractions from Language [ICLR 2024]
Weiyu Liu*, **Geng Chen***, Jiayuan Mao*, Joy Hsu, Jiajun Wu

Research Experience

Stanford University **Palo Alto, USA (remote)**

Research Assistant Advisor: Prof. Jiajun Wu

- **Learning Planning Concepts from Language for Long-Horizon Planning** *Apr* 2022 – *Sep* 2023
  - Used neuro-symbolic methods to ground actions to concepts and improve the compostional generalization ability of reinforce learning algorithm
  - Proposed a bi-level method which learns to plan for step-by-step instructions to achieve the goal instruction

Shanghai Jiao Tong University **Shanghai, China**

Research Assistant Advisor: Prof. Yunbo Wang

- **CPL: Continual Predictive Learning from Videos** *Jun* 2021 – *Nov* 2021
  - Proposed a new world model to capture task-specific visual dynamics in a Gaussian mixture latent space
  - Introduced a predictive experience replay method to overcome the forgetting issue of the world model in non-stationary environments
- **Continual Model-based Reinforcement Learning** *Feb* 2022 – *Jun* 2022
  - Extended CPL for continual visual model-based reinforcement learning tasks
- **Inverse Graphics Physical Inference Based on Neural Rendering** *Jan* 2023 – *Jun* 2023
  - Proposed an improvement to existing deep learning-based fluid simulation methods to achieve particle simulation of fluids conditioned on given physical properties
  - Established a framework to infer the fluid's physical properties and particle dynamics from 2D multi-view observation

Honors and Awards

Zhiyuan College Honors Scholarship(Top 5%), Shanghai Jiao Tong University 2019 – 2022
SJTU Academic Excellence Scholarship(Top 20%), Shanghai Jiao Tong University 2020 – 2022

Academic Performance

I got an overall GPA of 86.61/100 and a core GPA of 87.48/100.

Selected Courses

Linear Algebra(Honor)(93)	Discrete Mathematics(Honor)(92)	Convex and Linear Optimization(93)
Algorithm Design and Analysis(100)	Data Structure(Honor)(94)	Programming Languages(94)

Skills

Python (PyTorch, Numpy), C/C++, SQL, JavaScript, LaTeX